



MARINE CORPS SYSTEMS COMMAND
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Transportation & Distribution Information Systems (TDIS)

Joseph W. Rothrock
(703) 432-5121, DSN 378-
5121

FAX (703) 432-5184



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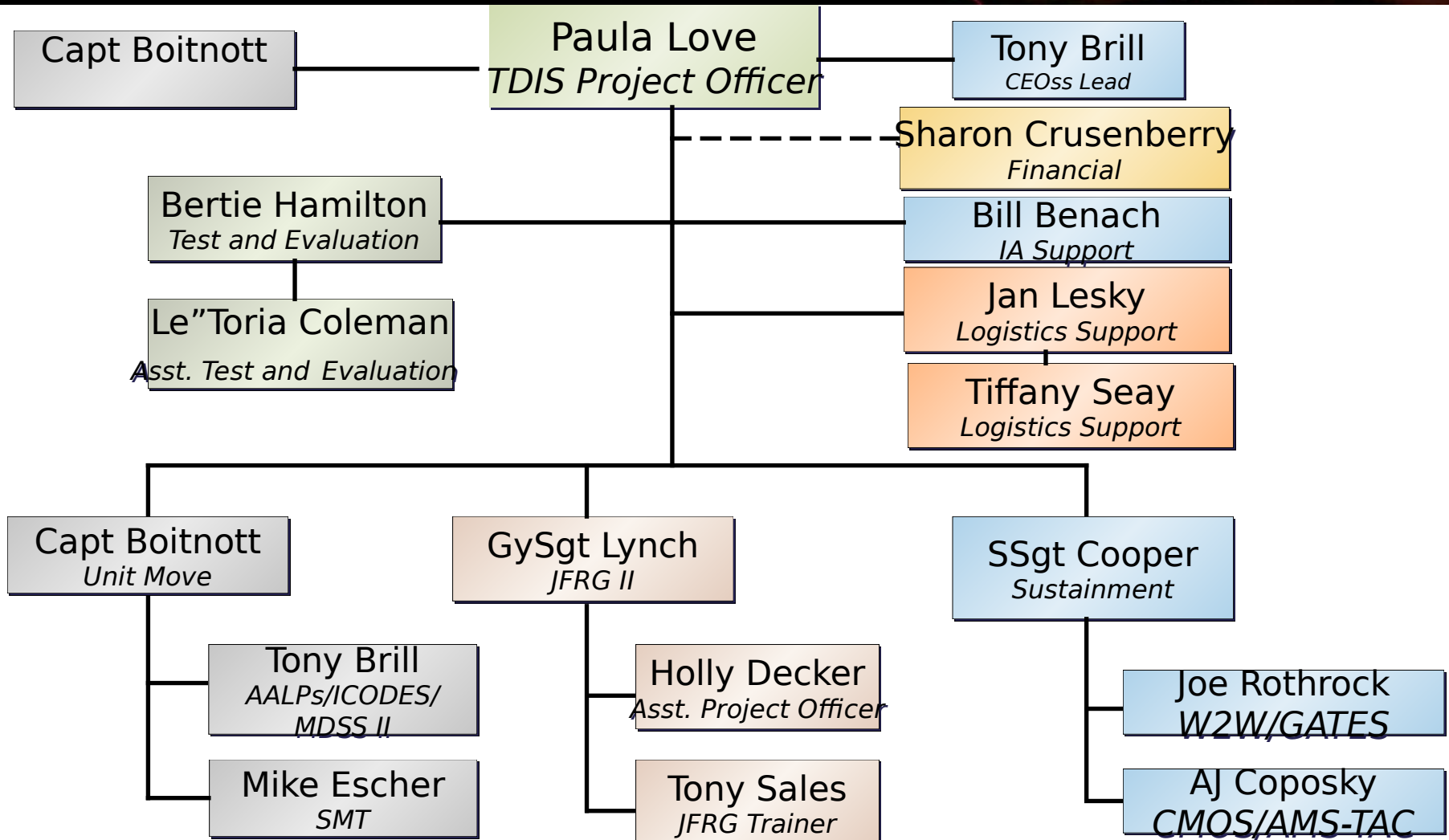
Mission

To develop, provide, and maintain integrated logistics systems that improve transportation, FDP&E, AIT, and distribution services to the Warfighter in a deployed and garrison environment, enhancing their war fighting capability.



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TDIS Applications

- ◆ **AMS-TAC - Automated Manifest System - Tactical**
- ◆ **CMOS - Cargo Movement Operations System**
- ◆ **W2W - Warehouse to War fighter**
- ◆ **Future Plans include integration of life cycle management responsibilities for:**
 - **TOPS, AGTR, GATES, Power track, GFM**
 - ◆ **Manpower and Funding Resources**

Independent AIT/RFID Program Office (2005)



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AMS-TAC

◆ AMS-TAC Current

- Fielded version 3.0.7
- Testing complete for version 3.1
 - ◆ SSAA/IA documentation in process
 - ◆ NMCI Certification pending resolution of challenges
 - Peer-to Peer or mapping is in violation of NMCI business rules
 - Using Unit budget for appropriate NMCI Seat assignment
 - Establishing seat assignments



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AMS-TAC



◆ AMS-TAC Future

- Alternatives
 - ◆ Web-enable in concert with client version (Navy/USMC venture)
 - ◆ Integration with W2W
 - ◆ Integration into CMOS
 - Capabilities Based Assessment Team (CBAT) vision
 - More Users MLG
 - Functionality tradeoffs btw Services



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CMOS



- ◆ 7.0 in IA certification process
- ◆ 7.1 certification will start upon completion of 7.0 upgrade
- ◆ Everyone should be writing RFID Tags out of CMOS for Iraq Shipments (IAW Policy)
- ◆ Working keyboard readers vice scanners
- ◆ Working 2d Barcode for 1348's
- ◆ Training 5-9 Jun, ANG, Harrisburg, PA.
 - Aug class unfunded
 - AIT Lab setup possible for mid term solution
- ◆ SPI Refresh, 55 Desk 18 Laptops
- ◆ Web-enable, USTC CBAT initiative
- ◆ D-CMOS
 - ✓ Any issues ?



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Bridge Technology

LTMITV-W2W

Last Tactical Mile In-Transit Visibility

Warehouse to



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W2W Background

◆ I MEF creation

- Late Summer 2003 - SYTEX (Prime Vendor/Systems integrator)
- Deployed to Iraq

◆ II MEF transitioned deployment and refined W2W material solution and business process

◆ MARCORSYSCOM assumed program management responsibilities in Aug 05



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W2W

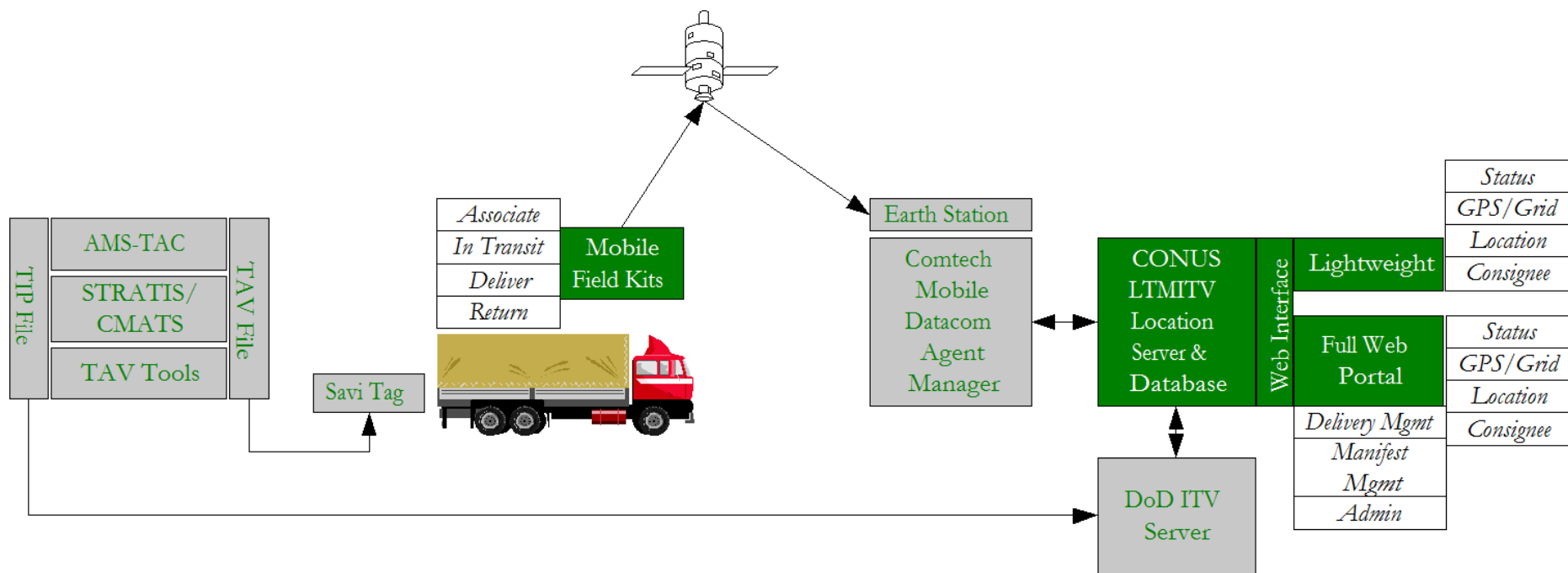
- ◆ Last-Mile' visibility of supplies forward
- ◆ Non-nodal location updates.
 - Not dependent on nodal interrogators
- ◆ Electronic capture of consignee data at delivery point
- ◆ Automated generation of AS1/AS2 transactions



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W2W





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W2W Principle Items

◆ Server

◆ Mobile Kit

- ◆ Computer (Laptop/tablet)
- ◆ Transceiver
- ◆ Cable Assembly
- ◆ Power Supply

No difference btw Base Unit Kit or Mobile Kit just how it is employed



W2W Functional

Overview

◆ Server

- Receives and parses TIP files or content level detail from ITV
- From Base Unit Kit or Mobile Kit
 - ◆ Receives location (GPS) updates
 - ◆ Receives camp drop, RUC pickup and RUC delivery data
- Provides rich query and lightweight query alternatives via web interface
- Sends AS1 and AS2 80 card column courier file updates to USMC server for consumption based on in-garrison and theatre business rules



W2W Functional

Overview

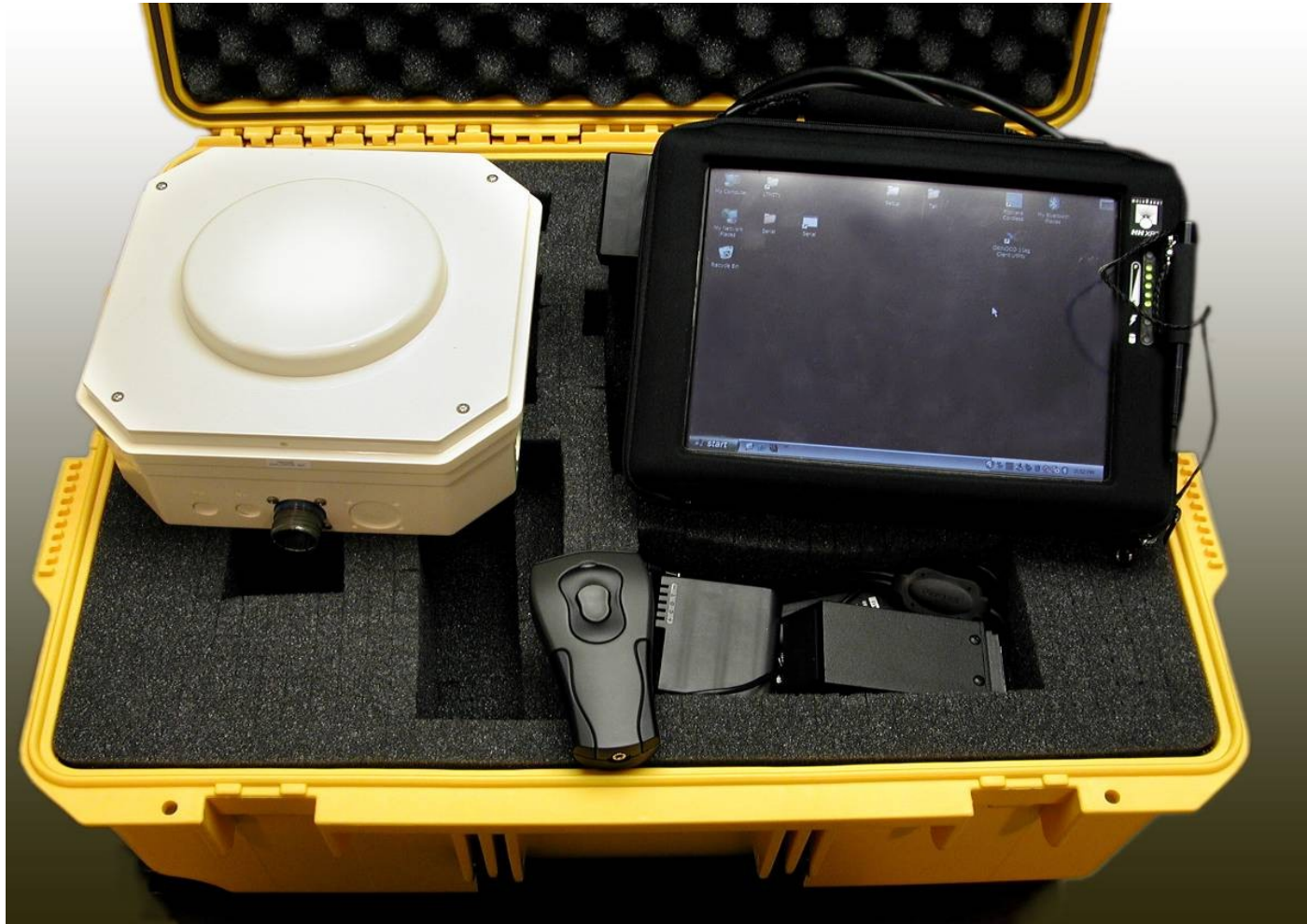
◆ Base Unit Kit or Mobile Unit Kit

- Computer with Visibility Tracking Program (VTP)
- At delivery preparation – input of PDC, AAC and Tag ID
- At Camp Drop, RUC Pickups and End RUC Deliveries
 - ◆ Mobile Unit Kit – GPS updates and input of Tag ID and Consignee data
 - ◆ Base Unit Kit – input of Tag ID and Consignee data



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- ◆ Visibility Tracking Program
- ◆ Software application that runs on Tablet PC, which is part of a Field Kit
 - A few touch screen, most pen-based
 - Pen-based provide brighter screens
 - Includes graphic keyboard pop-up to allow entry of name/textual data via keyboard
 - Pen-based also provides additional means of handwriting recognition for input



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W2W



VTP Main Menu



Last Tactical Mile In Transit Visibility

Warehouse to Warfighter Version 1.0.1858.24279

Status

| | | |
|--------------------|--------------------|---------------------|
| FIELD KIT #: 99999 | LOCAL TIME: 1603 | ZULU TIME: 2103 |
| GRID: [NO FIX] | LATITUDE: [NO FIX] | LONGITUDE: [NO FIX] |

System Check

Start Route

RUC Delivery

Camp Drop

End Route

Help

Transceiver Load

< Tests for VTP Readiness

< START a New Delivery Session (Prepare for your Route)

< DELIVER Gear to Consignee RUC

< DROP Gear at Intermediate Location (NOT to Consignee)

< END the Current Delivery Session

< Documentation and Help for the VTP



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W2W

- ◆ Correlates delivery manifest data and Tag IDs with a field kit that is placed within a delivery/convoy vehicle
- ◆ Provides a means to query the location and current status of materiel pushed from SMU/TMO forward via a web enabled interface
- ◆ Can be configured 2 ways:
 - Mobile unit on each supply convoy from warehouse
 - ◆ Direct RUC delivery - AS2 (D6T)
 - ◆ Intermediate camp drop - AS1
 - Fixed system at each camp
 - ◆ Capture subsequent RUC pickup from camp - AS2 (D6T)



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W2W

- ◆ Relies on satellite transceiver and GPS to communicate data to Location Server
 - Designed to use minimal bandwidth
 - Same transceivers as MTS and BFT
 - Provides robust seamless satellite data communications to ensure data that is sent up is not 'lost in the ether'
 - All communications between Field Kit and Satellite are encrypted
- ◆ Does not depend on a localized server
- ◆ Laptop does not use mapping software- it is purely an input/filter for data up to the Location Server



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W2W



LAST TACTICAL MILE IN TRANSIT VISIBILITY

Warehouse to Warfighter

Log In

Username:

Password:

Login

- [I meant to go to the DoD ITV web site](#)
- [I am a Using Unit with low bandwidth but would like to query LTMITV](#)



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W2W



LTMITV - Query - Microsoft Internet Explorer provided by AT&T WorldNet Service

File Edit View Favorites Tools Help

DoD
ITV Server

Lightweight
LTMITV

Log Out

LTMITV

LAST TACTICAL MILE IN TRANSIT VISIBILITY

Warehouse to Warfighter

Query Manifest View Delivery Mgmt Admin

Search

DOC NUMBER: MMX20051690001

NSN:

TCN:

Manifest Data

RUC:

Tag ID:

Last: 48 hours

SEARCH

| RUC TAG | TCN | Items | Status | Last Position | Last Updated | |
|--------------------------------|-------------------|---------------------------|--------|---|---------------------|-----|
| MMX200 000000 | MMC10041710005XXX | 13 | Closed | 38° 54' 36" N 77° 13' 12" W 18SUJ 07513 09132 | 2/3/2005 6:06:08 PM | |
| Document Number | NSN | Nomenclature | | UI | QTY | RIC |
| MMX20051690001 | 5999010321692 | ACCESSORY MAINT KIT TELE | | EA | 00003 | MC1 |
| MMX20051690002 | 6625010906789 | ADAPTER,TEST,POWER SUPPLY | | EA | 00004 | MC1 |
| MMX20051690003 | 5895012509557 | CONVERTER,MODEM,SI | | EA | 00005 | MC1 |
| MMX20051690004 | | | | | | |
| MMX20051690005 | | | | | | |
| MMX20051690006 | | | | | | |
| MMX20051690007 | | | | | | |
| MMX20051690008 | | | | | | |
| MMX20051690009 | | | | | | |
| MMX20051690010 | | | | | | |
| MMX20051690011 | | | | | | |
| MMX20051690012 | | | | | | |
| MMX20051690013 | | | | | | |

[MMX200 000001](#)

[MMX200 000002](#)

[MMX200 000003](#)

[MMX200 000004](#)

TagHistory - Microsoft Internet Explorer provided by AT&T WorldNet Service

TAG: 000004

| Log Date | Position | Status |
|---------------------|---|---------------------|
| 2/3/2005 6:17:37 PM | 38° 54' 36" N 77° 13' 12" W 18SUJ 07513 09132 | Closed |
| 2/3/2005 6:17:36 PM | 38° 54' 36" N 77° 13' 12" W 18SUJ 07513 09132 | Delivered |
| 2/3/2005 6:12:26 PM | 38° 54' 36" N 77° 13' 12" W 18SUJ 07513 09132 | Camp DropOff |
| 2/3/2005 6:09:56 PM | | In Transit |
| | | Waiting for Details |
| | | Pending |

start

C. 2 P. R. C.

My Documents

1:54 PM Thursday



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W2W



Search Manifest

DOC NUMBER:

Tag ID:

TCN:

NSN:

RUC:

home - Microsoft Internet Explorer provided by AT&T WorldNet Service

Address <http://laddemo1.sytexinc.com/tmtv1w/home.aspx>

Search Manifest

DOC NUMBER:

Tag ID:

TCN:

NSN:

RUC:

| RUC TAG | TCN | Items | Status | Last Position | Last Updated |
|-----------------|-------------------|---------------------|--------|------------------------------|----------------------|
| M28321 730764 | M283214336T730764 | 17 | Closed | 33.35 N 117.41 W 61851 90164 | 12/2/2004 5:40:12 PM |
| Document Number | NSN | Nomenclature | UI | QTY | RIC |
| M2832143347281 | 2540014957611 | SEAL,UPPER DOOR HIN | EA | 00001 | MC1 |
| M2832143347291 | 2930014956890 | FAN OPERATOR | EA | 00001 | MC1 |
| M2832143356334 | 5330009668657 | PACKING ASSORTMENT, | EA | 00001 | MC1 |
| M2832143356336 | 5975005709598 | STRAP,TIEDOWN,ELECT | HD | 00001 | MC1 |
| M2832143356338 | 5970004194291 | TAPE,INSULATION,ELE | RO | 00001 | MC1 |
| M2832143356339 | 5940005250907 | TERMINAL KIT | KT | 00001 | MC1 |
| M2832143356354 | 6150010270125 | CABLE ASSEMBLY,SPEC | EA | 00001 | MC1 |
| M2832143356355 | 4820013988314 | VALVE,CHECK | EA | 00002 | MC1 |
| M2832143356390 | 6240001433070 | LAMP,INCANDESCENT | EA | 00004 | MC1 |
| M2832143356391 | 6240001536494 | LAMP,INCANDESCENT | EA | 00004 | MC1 |
| M2832143357323 | 5340012658911 | HANDLE,DOOR | EA | 00001 | MC1 |
| M2832143357329 | 5340011553798 | LEVER,MANUAL CONTRO | EA | 00001 | MC1 |
| M2832143357330 | 5310009752075 | NUT,PLAIN,HEXAGON | HD | 00001 | MC1 |
| M2832143357331 | 5340009850823 | CLEVIS,ROD END | EA | 00001 | MC1 |
| M2832143357332 | 5315008423044 | PIN,COTTER | HD | 00001 | MC1 |

Lightweight Query



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Next Steps

- ◆ Continue to assess operational use
- ◆ Continue in-theatre fielding and assessment
- ◆ Field Kits to all 3 MEF's for Training Base
- ◆ Determine additional requirements
- ◆ Conduct Requirements Board for seamless distribution process (AMS/W2W ?)
- ◆ Future minor releases
- ◆ Passive RFID options
- ◆ Smaller footprint (Handheld)
- ◆ Converge with other SatCom providers
- ◆ MCEITS, IA Process



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What it all Means

- ◆ Visibility from Warehouse to Warfighter
- ◆ Robust COTS platform
- ◆ Simplified approach
 - Uses pre-positioned data
 - Economic use of bandwidth
- ◆ Not intended as another stovepipe
- ◆ Reusable platform to solve real problems right now...
- ◆ ...while recognizing that change is inevitable with:
 - Increased use and feedback
 - Technology trends and adoption
 - Standards, policy and directive evolution



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Questi

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Information Systems
(TDIS)
Program Office

***Thank
You !***